

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

AMENDMENTS TO THE CLAIMS

Please enter the following amendments without prejudice or disclaimer.

Please cancel claims 41-67 without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings, of claims in the application.

In the claims:

1-22. Canceled.

23. (Previously presented) A method of treating obesity in a human subject comprising administering to said subject an amount of a composition comprising an amylin or amylin agonist effective to treat obesity, with the proviso that the composition does not contain a cholecystokinin or a cholecystokinin agonist and wherein the amount of the amylin or amylin agonist administered is about 0.01 mg to about 5 mg per day.

24. (Previously presented) A method according to claim 23 wherein said amylin agonist is an amylin agonist analogue.

25. (Previously presented) A method according to claim 24 wherein said amylin agonist analogue is selected from the group consisting of ^{25,28,29}Pro-h-amylin (SEQ ID NO:12), ¹⁸Arg^{25,28,29}Pro-human-amylin (SEQ ID NO:10), and ¹⁸Arg^{25,28}Pro-h-amylin (SEQ ID NO:8).

26. (Previously presented) A method according to claim 24 wherein said amylin agonist analogue is ^{25,28,29}Pro-h-amylin (SEQ ID NO:12).

27. (Previously presented) A method according to claim 23 wherein said amylin or amylin agonist is administered subcutaneously.

28. (Previously presented) A method according to claim 26 wherein said amylin agonist analogue is administered subcutaneously.

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

29. (Previously presented) A method according to claim 23 wherein said amylin or amylin agonist is administered from 1 to 4 times per day.

30. (Previously presented) A method according to claim 29 wherein said amylin or amylin agonist is administered in an amount from about 0.0025 mg/dose to about 5 mg/dose.

31. (Previously presented) A method according to claim 23 wherein said amylin or amylin agonist is administered before a meal.

32. (Previously presented) A method according to claim 23 wherein said amylin or amylin agonist is administered about 15 minutes of said meal.

33. (Previously presented) A method of treating obesity in a human subject comprising administering to said subject a composition comprising an active anti-obesity agent consisting essentially of an amylin or an amylin agonist, wherein the amount of amylin or amylin agonist administered is about 0.01 mg to about 5 mg per day.

34. (Previously presented) A method according to claim 33 wherein said amylin agonist is an amylin agonist analogue.

35. (Previously presented) A method according to claim 34 wherein said amylin agonist analogue is selected from the group consisting of ^{25,28,29}Pro-h-amylin (SEQ ID NO:12), ¹⁸Arg^{25,28,29}Pro-h-amylin (SEQ ID NO:10) and ¹⁸Arg^{25,28}Pro-h-amylin (SEQ ID NO:8).

36. (Previously presented) A method according to claim 34 wherein said amylin agonist analogue is ^{25,28,29}Pro-h-amylin (SEQ ID NO:12).

37. (Previously presented) A method according to claim 33 wherein said amylin or amylin agonist is administered subcutaneously.

38. (Previously presented) A method according to claim 33 wherein said amylin or amylin agonist is administered from 1 to 4 times per day.

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

39. (Previously presented) A method according to claim 33 wherein said amylin or amylin agonist is administered before a meal.

40-67. Canceled.

68. (New) The method according to claim 24, wherein the amylin agonist analogue comprises an amino acid sequence of (SEQ ID NO:14):

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-¹⁰F₁-G₁-Asn-H₁-Gly-²⁵Pro-I₁-Leu-Pro-J₁-³⁰Thr-K₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;

B₁ is Ala, Ser or Thr;

C₁ is Val, Leu or Ile;

D₁ is His or Arg;

E₁ is Ser or Thr;

F₁ is Ser, Thr, Gln or Asn;

G₁ is Asn, Gln or His;

H₁ is Phe, Leu or Tyr;

I₁ is Ile, Val, Ala or Leu

J₁ is Ser, Pro or Thr;

K₁ is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage, wherein said intramolecular linkage comprises a disulfide bond, a lactam or a thioether linkage; and Z is an amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and provided that when A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Val, J₁ is Pro, and K₁ is Asn; then one or more A₁ to K₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy.

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

69. (New) The method according to claim 24, wherein the amylin agonist analogue comprises an amino acid sequence of (SEQ ID NO:15):

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵Pro-I₁-Leu-J₁-Pro-³⁰Thr-K₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;

B₁ is Ala, Ser or Thr;

C₁ is Val, Leu or Ile;

D₁ is His or Arg;

E₁ is Ser or Thr;

F₁ is Ser, Thr, Gln or Asn;

G₁ is Asn, Gln or His;

H₁ is Phe, Leu or Tyr;

I₁ is Ile, Val, Ala or Leu;

J₁ is Ser, Pro, Leu, Ile or Thr;

K₁ is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage, wherein said intramolecular linkage comprises a disulfide bond, a lactam or a thioether linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and provided that when

(a) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Val, J₁ is Pro and K₁ is Asn; or

(b) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is His, E₁ is Ser, F₁ is Asn, G₁ is Asn, H₁ is Leu, I₁ is Val, J₁ is Ser and K₁ is Asn;

then one or more of A₁ to K₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy.

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

70. (New) The method according to claim 24, wherein the amylin agonist analogue comprises an amino acid sequence of (SEQ ID NO:16):

A_1 -X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵I₁-J₁-Leu-Pro-Pro-³⁰Thr-K₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A_1 is Lys, Ala, Ser or hydrogen;

B_1 is Ala, Ser or Thr;

C_1 is Val, Leu or Ile;

D_1 is His or Arg;

E_1 is Ser or Thr;

F_1 is Ser, Thr, Gln or Asn;

G_1 is Asn, Gln or His;

H_1 is Phe, Leu or Tyr;

I_1 is Ala or Pro;

J_1 is Ile, Val, Ala or Leu;

K_1 is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage, wherein said intramolecular linkage comprises a disulfide bond, a lactam or a thioether linkage; and Z is amino, alkylamino dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and provided that when A_1 is Lys, B_1 is Ala, C_1 is Val, D_1 is Arg, E_1 is Ser, F_1 is Ser, G_1 is Asn H_1 is Leu, I_1 is Pro, J_1 is Val and K_1 is Asn; then one or more of A_1 to K_1 is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy.

71. (New) The method according to claim 24, wherein the amylin agonist analogue comprises an amino acid sequence of (SEQ ID NO:17):

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵Pro-I₁-Leu-Pro-Pro-³⁰Thr-J₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;

B₁ is Ala, Ser or Thr;

C₁ is Val, Leu or Ile;

D₁ is His or Arg;

E₁ is Ser or Thr;

F₁ is Ser, Thr, Gln or Asn;

G₁ is Asn, Gln or His;

H₁ is Phe, Leu or Tyr;

I₁ is Ile, Val, Ala or Leu;

J₁ is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage wherein said intramolecular linkage comprises a disulfide bond, a lactam or a thioether linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and

provided that when A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Val and J₁ is Asn; then one or more of A₁ to J₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy.

72. (New) The method according to claim 34, wherein the amylin agonist analogue comprises an amino acid sequence of (SEQ ID NO:14):

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵Pro-I₁-Leu-Pro-J₁-³⁰Thr-K₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

B₁ is Ala, Ser or Thr;
C₁ is Val, Leu or Ile;
D₁ is His or Arg;
E₁ is Ser or Thr;
F₁ is Ser, Thr, Gln or Asn;
G₁ is Asn, Gln or His;
H₁ is Phe, Leu or Tyr;
I₁ is Ile, Val, Ala or Leu
J₁ is Ser, Pro or Thr;
K₁ is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage, wherein said intramolecular linkage comprises a disulfide bond, a lactam or a thioether linkage; and Z is an amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and provided that when A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Val, J₁ is Pro, and K₁ is Asn; then one or more A₁ to K₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy.

73. (New) The method according to claim 34, wherein the amylin agonist analogue comprises an amino acid sequence of (SEQ ID NO:15):

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵Pro-I₁-Leu-J₁-Pro-³⁰Thr-K₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;
B₁ is Ala, Ser or Thr;
C₁ is Val, Leu or Ile;
D₁ is His or Arg;
E₁ is Ser or Thr;

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

F₁ is Ser, Thr, Gln or Asn;

G₁ is Asn, Gln or His;

H₁ is Phe, Leu or Tyr;

I₁ is Ile, Val, Ala or Leu;

J₁ is Ser, Pro, Leu, Ile or Thr;

K₁ is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage, wherein said intramolecular linkage comprises a disulfide bond, a lactam or a thioether linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and provided than when

(a) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Val, J₁ is Pro and K₁ is Asn; or

(b) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is His, E₁ is Ser, F₁ is Asn, G₁ is Asn, H₁ is Leu, I₁ is Val, J₁ is Ser and K₁ is Asn;

then one or more of A₁ to K₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy.

74. (New) The method according to claim 34, wherein the amylin agonist analogue comprises an amino acid sequence of (SEQ ID NO:16):

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵I₁-J₁-Leu-Pro-Pro-³⁰Thr-K₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;

B₁ is Ala, Ser or Thr;

C₁ is Val, Leu or Ile;

D₁ is His or Arg;

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

E₁ is Ser or Thr;
F₁ is Ser, Thr, Gln or Asn;
G₁ is Asn, Gln or His;
H₁ is Phe, Leu or Tyr;
I₁ is Ala or Pro;
J₁ is Ile, Val, Ala or Leu;
K₁ is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage, wherein said intramolecular linkage comprises a disulfide bond, a lactam or a thioether linkage; and Z is amino, alkylamino dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and provided that when A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn H₁ is Leu, I₁ is Pro, J₁ is Val and K₁ is Asn; then one or more of A₁ to K₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy.

75. (New) The method according to claim 34, wherein the amylin agonist analogue comprises an amino acid sequence of (SEQ ID NO:17):

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵Pro-I₁-Leu-Pro-Pro-³⁰Thr-J₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;
B₁ is Ala, Ser or Thr;
C₁ is Val, Leu or Ile;
D₁ is His or Arg;
E₁ is Ser or Thr;
F₁ is Ser, Thr, Gln or Asn;
G₁ is Asn, Gln or His;
H₁ is Phe, Leu or Tyr;

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

I₁ is Ile, Val, Ala or Leu;

J₁ is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage wherein said intramolecular linkage comprises a disulfide bond, a lactam or a thioether linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and

provided that when A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Val and J₁ is Asn; then one or more of A₁ to J₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy.

76. (New) A method of treating obesity in a human subject comprising administering to said subject an amount of a composition comprising a peptide having an amino acid sequence of (SEQ ID NO:14):

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-¹⁰F₁-G₁-Asn-H₁-Gly-²⁵Pro-I₁-Leu-Pro-J₁-³⁰Thr-K₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;

B₁ is Ala, Ser or Thr;

C₁ is Val, Leu or Ile;

D₁ is His or Arg;

E₁ is Ser or Thr;

F₁ is Ser, Thr, Gln or Asn;

G₁ is Asn, Gln or His;

H₁ is Phe, Leu or Tyr;

I₁ is Ile, Val, Ala or Leu

J₁ is Ser, Pro or Thr;

K₁ is Asn, Asp or Gln;

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage, wherein said intramolecular linkage comprises a disulfide bond, a lactam or a thioether linkage; and Z is an amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and provided that when A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Val, J₁ is Pro, and K₁ is Asn; then one or more A₁ to K₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy and with the proviso that the composition does not contain a cholecystokinin or a cholecystokinin agonist.

77. (New) A method of treating obesity in a human subject comprising administering to said subject an amount of a composition comprising a peptide having an amino acid sequence of (SEQ ID NO:15):

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵Pro-I₁-Leu-J₁-Pro-³⁰Thr-K₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;

B₁ is Ala, Ser or Thr;

C₁ is Val, Leu or Ile;

D₁ is His or Arg;

E₁ is Ser or Thr;

F₁ is Ser, Thr, Gln or Asn;

G₁ is Asn, Gln or His;

H₁ is Phe, Leu or Tyr;

I₁ is Ile, Val, Ala or Leu;

J₁ is Ser, Pro, Leu, Ile or Thr;

K₁ is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage, wherein said intramolecular linkage

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

comprises a disulfide bond, a lactam or a thioether linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and provided than when

(a) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Val, J₁ is Pro and K₁ is Asn; or

(b) A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is His, E₁ is Ser, F₁ is Asn, G₁ is Asn, H₁ is Leu, I₁ is Val, J₁ is Ser and K₁ is Asn;

then one or more of A₁ to K₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy and with the proviso that the composition does not contain a cholecystokinin or a cholecystokinin agonist.

78. (New) A method of treating obesity in a human subject comprising administering to said subject an amount of a composition comprising a peptide having an amino acid sequence of (SEQ ID NO:16):

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁-²⁰F₁-G₁-Asn-H₁-Gly-²⁵I₁-J₁-Leu-Pro-Pro-³⁰Thr-K₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;
B₁ is Ala, Ser or Thr;
C₁ is Val, Leu or Ile;
D₁ is His or Arg;
E₁ is Ser or Thr;
F₁ is Ser, Thr, Gln or Asn;
G₁ is Asn, Gln or His;
H₁ is Phe, Leu or Tyr;
I₁ is Ala or Pro;
J₁ is Ile, Val, Ala or Leu;

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

K₁ is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage, wherein said intramolecular linkage comprises a disulfide bond, a lactam or a thioether linkage; and Z is amino, alkylamino dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and provided that when A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn H₁ is Leu, I₁ is Pro, J₁ is Val and K₁ is Asn; then one or more of A₁ to K₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy and with the proviso that the composition does not contain a cholecystokinin or a cholecystokinin agonist.

79. (New) A method of treating obesity in a human subject comprising administering to said subject an amount of a composition comprising a peptide having an amino acid sequence of (SEQ ID NO:17):

¹A₁-X-Asn-Thr-⁵Ala-Thr-Y-Ala-Thr-¹⁰Gln-Arg-Leu-B₁-Asn-¹⁵Phe-Leu-C₁-D₁-E₁²⁰F₁-G₁-Asn-H₁-Gly-²⁵Pro-I₁-Leu-Pro-Pro-³⁰Thr-J₁-Val-Gly-Ser-³⁵Asn-Thr-Tyr-Z

wherein

A₁ is Lys, Ala, Ser or hydrogen;

B₁ is Ala, Ser or Thr;

C₁ is Val, Leu or Ile;

D₁ is His or Arg;

E₁ is Ser or Thr;

F₁ is Ser, Thr, Gln or Asn;

G₁ is Asn, Gln or His;

H₁ is Phe, Leu or Tyr;

I₁ is Ile, Val, Ala or Leu;

J₁ is Asn, Asp or Gln;

X and Y are independently selected residues having side chains which are chemically bonded to each other to form an intramolecular linkage wherein said intramolecular linkage

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

comprises a disulfide bond, a lactam or a thioether linkage; and Z is amino, alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy; and provided that when A₁ is Lys, B₁ is Ala, C₁ is Val, D₁ is Arg, E₁ is Ser, F₁ is Ser, G₁ is Asn, H₁ is Leu, I₁ is Val and J₁ is Asn; then one or more of A₁ to J₁ is a D-amino acid and Z is selected from the group consisting of alkylamino, dialkylamino, cycloalkylamino, arylamino, aralkylamino, alkyloxy, aryloxy or aralkyloxy and with the proviso that the composition does not contain a cholecystokinin or a cholecystokinin agonist.

80. (New) The method according to claim 23 wherein the amount administered is from about 30 µg/dose to about 300 µg/dose.

81. (New) The method according to claim 38 wherein said amylin or amylin agonist is administered in an amount from about 0.0025 mg/dose to about 5 mg/dose.

82. (New) The method according to claim 33 wherein said amylin or amylin agonist is administered at a dose from about 30 µg/dose to about 300 µg/dose.

83. (New) The method according to claim 76 wherein said peptide is administered from about 1 to 4 times a day at an amount of about 0.0025 mg/dose to about 5 mg/dose.

84. (New) The method according to claim 76 wherein said peptide is administered at a dose from about 30 µg/dose to about 300 µg/dose.

85. (New) The method according to claim 77 wherein said peptide is administered from about 1 to 4 times a day at an amount of about 0.0025 mg/dose to about 5 mg/dose.

86. (New) The method according to claim 77 wherein said peptide is administered at a dose from about 30 µg/dose to about 300 µg/dose.

87. (New) The method according to claim 78 wherein said peptide is administered from about 1 to 4 times a day at an amount of about 0.0025 mg/dose to about 5 mg/dose.

USSN: 09/445,517
Atty Docket No. 18528/230 235/013US

88. (New) The method according to claim 78 wherein said peptide is administered at a dose from about 30 µg/dose to about 300 µg/dose.

89. (New) The method according to claim 79 wherein said peptide is administered from about 1 to 4 times a day at an amount of about 0.0025 mg/dose to about 5 mg/dose.

90. (New) The method according to claim 79 wherein said peptide is administered at a dose from about 30 µg/dose to about 300 µg/dose.

91. (New) The method according to claim 76 wherein said peptide is ^{25,28,29}Pro-h-amylin (SEQ ID NO:12).

92. (New) The method according to claim 77 wherein said peptide is ^{25,28,29}Pro-h-amylin (SEQ ID NO:12).

93. (New) The method according to claim 78 wherein said peptide is ^{25,28,29}Pro-h-amylin (SEQ ID NO:12).

94. (New) The method according to claim 79 wherein said peptide is ^{25,28,29}Pro-h-amylin (SEQ ID NO:12).